UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,683	09/08/2003	Joerg Singler	000005-006100US	2129

58735 7590 09/03/2008

Fountainhead Law Group P.C.
900 LAFAYETTE STREET
SUITE 509
SANTA CLARA, CA 95050

EXAMINER	
ZHEN, LI B	

ART UNIT	PAPER NUMBER
2194	

MAIL DATE	DELIVERY MODE
09/03/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,683	SINGLER ET AL.	
	Examiner	Art Unit	
	LI B. ZHEN	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1 – 25 are pending in the application.

Response to Amendment

2. Amendment to claims 13 and 18 overcomes the previous rejection under 35 USC § 101. The rejection under 35 USC § 101 is withdrawn.

Response to Arguments

3. Applicant's arguments filed 6/3/2008 have been fully considered but they are not persuasive. In response to the Non-Final Office Action date 02/05/2008, applicant argues:

(1) Applicants' claim 21 indicates a connection request is received at a client abstraction layer from a client program. Accordingly, a client does not send a connection request directly to a server, which is in contrast to what is disclosed by Hoennig [pp. 10 and 13 - 16];

(2) In Hoennig, a user request for a request interface is received at a server and not at a client abstraction layer [p. 12]; and

(3) Hoennig does not disclose a client abstraction layer using selection data elements, identified at the client abstraction layer in a client request received at the client abstraction layer, to select an adapter [p. 12].

In response to argument (1), examiner notes that the recited "client abstraction layer" is located on the claimed server. Since the claimed "client abstraction layer" is located on the server, it follows that the server has to receive the client request before it

is routed to the client abstraction layer located at the server. Therefore, the client requests in applicant's invention are also sent directly to the server. Applicant's arguments suggest that the client abstraction layer is not located at the server. However this contradicts the claims which clearly recites "a client abstraction layer on a server" (claim 1, line 4; claim 13, line 5; claim 16, line 2; claim 18, line 2).

As to argument (2), examiner respectfully disagrees and notes that applicant's claims recite a "client abstraction layer on a server" (see response to argument (1) above). In addition, Hoennig teaches an embodiment where a service object 902 wraps legacy object 904 thereby allowing user object 901 to employ the functionality of legacy object 904 (col. 22, lines 5 – 48). In this embodiment, the server object and adapter manager corresponds to the claim "client abstraction layer" and the legacy object corresponds to the application running on the server. As described in Fig. 9, the server object clearly receives the request before the request is forwarded to the legacy object. Therefore, Hoennig also discloses a user request for a request interface is received at a client abstraction layer.

As to argument (3), examiner respectfully disagrees and notes that Hoennig teaches an embodiment where a service object 902 wraps legacy object 904 thereby allowing user object 901 to employ the functionality of legacy object 904 (col. 22, lines 5 – 48). In this embodiment, the server object and adapter manager corresponds to the claim "client abstraction layer" and the legacy object corresponds to the application running on the server. As described in Fig. 9, the server object clearly receives the

request before the request is forwarded to the legacy object. Hoennig also teaches client abstraction layer using selection data elements, identified at the client abstraction layer in a client request received at the client abstraction layer, to select an adapter (obtaining the interface adapter includes at least one of selecting, identifying, retrieving the interface adapter, and similar operations; col. 7, lines 2 – 19). Therefore, Hoennig teaches applicant's invention as claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 21 and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by United States Patent 7,003,773 to Hoennig et al. (hereinafter Hoennig).**

6. As to claim 21, Hoennig teaches a method of selecting an adapter for converting communication between a plurality of client programs and a server application comprising:

at a client abstraction layer (col. 14, lines 36 – 45 and col. 22, lines 5 – 49), receiving a connection request from a client program to begin a new connection with the server application (step 303, Fig. 3, col. 9, lines 62-67 and col. 11, lines 41-46); and

executing a multi-stage selection process wherein the process comprises:

selecting a process from a plurality of processes based on the connection request (col. 3, lines 1-37); and

selecting the adapter from a plurality of adapters based the selected process (step 307, Fig. 3), wherein each adapter from the plurality of adapters is designed for use with a particular type of client (col. 9, lines 62-67, col. 10, lines 7-10, col. 11, lines 41-46, and col. 15, lines 10-13).

7. As to claim 22, Hoennig teaches the method of claim 21, wherein a first process from the plurality of processes comprises:

receiving an adapter type specified in the connection request (col. 10, lines 4-11); and

selecting the adapter based on the adapter type (step 304, Fig. 3, col. 14, lines 42-45 and 52-59).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. **Claims 1-3, 5-7, 9, 11, 13-14, and 16-19 rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 7,003,773 to Hoennig et al.**

(hereinafter Hoennig) in view of United States Patent 5,644,720 to Boll et al. (hereinafter Boll).

10. As to claim 1, Hoennig teaches the invention substantially as claimed including a computer program product, tangibly embodied in a machine-readable storage device, the computer program product comprising instructions operable to cause data processing apparatus to:

identify at a client abstraction layer on a server, one or more selection data elements in a client request received at the client abstraction layer (col. 14, lines 36 – 45 and col. 22, lines 5 – 49), where each selection data element specifies an adapter type, a client type, or a data describing the client (step 304, Fig. 3, col. 14, lines 42-45 and 52-59); and

use the selection data elements to select an adapter at the client abstraction layer to convert communication between an application running on the server and one or more client programs (step 307, Fig. 3, col. 15, lines 1-5), the adapter being designed for use with a particular client program (step 307, Fig. 3, col. 9, lines 62-67, col. 10, lines 7-10, col. 11, lines 41-16, and col. 15, lines 10-13).

Hoennig does not explicitly disclose the adapter being used by the client abstraction layer as an intermediary, the adapter hiding the client-specific behavior from the application running on the server.

However Boll teaches the adapter (e.g. Communications Interface, 24, Fig. 1) being used by the client abstraction layer as an intermediary (e.g. interface between

Client Applications A- C, 12, 14, 16 and Client Servers 28, 30, 32, 34, 36), the adapter hiding the client-specific behavior from the application running on the server (col. 3, lines 26-34, Figure 1).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Adapter Manager of Hoennig with the teachings of a Communications Interface from Boll because this feature would have provided a communications interface for a computer network having a client application and a plurality of client servers (col. 2, lines 45-47 of Boll).

11. As to claim 2, Hoennig teaches wherein selecting an adapter comprises:

performing a multi-stage selection process to select an adapter (determining module performs selection process 122, Fig. 1, col. 11, lines 11-13), the multi-stage selection process comprising:

performing an adapter-request process for selecting an adapter (determining module 122, Fig. 1, col. 11, lines 11-13) based on the selection data elements that specify the adapter type (specification of request interface, col. 14, lines 38-39);

if the adapter-request process fails to select an adapter, performing a client-identification process for selecting an adapter (determining module 122, Fig. 1, col. 11, lines 11-13) based on the selection data elements that specify the client type (unique identifier assigned to request interface, col. 14, lines 39-41); and

if the client-identification process fails to select an adapter, performing a client-description process for selecting an adapter (determining module 122, Fig. 1, col. 11,

lines 11-13) based on the selection data elements that specify data describing the client (step 304, Fig. 3, col. 14, lines 52-59).

12. As to claim 3, Hoennig teaches wherein the selected adapter makes use of a client capability particular to the client (step 307, Fig. 3).

13. As to claim 5, Hoennig teaches wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that makes use of a particular client capability (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 10-20).

14. As to claim 6, Hoennig teaches wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that requires the least communication with the client (requiring interface directly available at service object, col. 11, lines 10-15).

15. As to claim 7, Hoennig teaches wherein the client has multiple client capabilities, and wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that is operable to make use of the greatest number of the multiple client capabilities (step 602, Fig. 6).

16. As to claim 9, Hoennig teaches wherein the client-description process comprises:

using the specification of data describing the client (e.g. adapter request) to identify a client capability (e.g. request interface) (steps 601-603, Fig. 6); and

wherein the adapter selected to communicate with the client conforms to the client capability (e.g. request interface) (steps 601-603, Fig. 6).

17. As to claim 11, Hoennig teaches wherein the client-identification process comprises looking up the specification of the client type in a table (Select from library, step 602, Fig. 6).

18. As to claim 13, Hoennig teaches the invention substantially as claimed including a system comprising:

a server having a processor and memory (col. 12, line 62 – col. 13, line 8) operable to run an application (server data processing device, col. 7, lines 59-63);

a plurality of client-specific adapters, each adapter in the plurality enabling communication between the application on the server and a client (Interface Adapter Library 155, Fig. 1); and

a client abstraction layer on the server operable to (Interface Adapter 202, Fig. 2):

identify one or more selection data elements in a client request received at the client abstraction layer (col. 14, lines 36 – 45 and col. 22, lines 5 – 49), where each selection data element specifies an adapter type, a client type, or a data describing the client (step 304, Fig. 3, col. 14, lines 42-45 and 52-59); and

use the selection data elements to select an adapter at the client abstraction layer to convert communication between an application running on the server and one or more client programs (step 307, Fig. 3, col. 15, lines 1-5),

the adapter being designed for use with a particular client program (step 307, Fig. 3, col. 9, lines 62-67, col. 10, lines 7-10, col. 11, lines 41-16, and col. 15, lines 10-13).

Hoennig does not explicitly disclose the adapter being used by the client abstraction layer as an intermediary, the adapter hiding the client-specific behavior from the application running on the server.

However Boll teaches the adapter (e.g. Communications Interface, 24, Fig. 1) being used by the client abstraction layer as an intermediary (e.g. interface between Client Applications A- C, 12, 14, 16 and Client Servers 28, 30, 32, 34, 36), the adapter

hiding the client-specific behavior from the application running on the server (col. 3, lines 26-34, Figure 1).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Adapter Manager of Hoennig with the teachings of a Communications Interface from Boll because this feature would have provided a communications interface for a computer network having a client application and a plurality of client servers (col. 2, lines 45-47 of Boll).

19. As to claim 14, this claim is rejected for the same reasons as claim 2 since claim 14 recites the same or equivalent invention; see the rejection to claim 2 above.

20. As to claims 16-17, these claims are rejected for the same reasons as claims 1-2, respectively, since claims 16-17 recite the same or equivalent invention, see the rejections to claims 1-2 above.

21. As to claims 18-19, these claims are rejected for the same reasons as claims 1-2, respectively, since claims 18-19 recite the same or equivalent invention, see the rejections to claims 1-2 above.

22. **Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 7,003,773 to Hoennig et al. (hereinafter Hoennig) in view of United States Patent 5,644,720 to Boll et al. (hereinafter Boll) as applied**

to claims 3 and 9 above, and further in view of United States Patent 6,300,947 B1 to Kanevsky.

23. As to claim 4, Hoennig as modified by Boll does not explicitly disclose wherein the client capability comprises the capability to execute instructions in a scripting language.

However Kavensky teaches wherein the client capability comprises the capability to execute instructions in a scripting language (URL/CGI scripts, col. 8, lines 16-19 of Kavensky).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the user object of Hoennig as modified by Boll with the teachings of a client from Kavensky because this feature would have further provided a different viewing-access strategy for such visual devices varying, for example, from standard PC monitors, laptop screens and palmtops to webphone and digital camera displays, to any device, with a display, capable of web browsing, and from large windows to small windows (col. 1. lines 60-65, of Kanevsky).

24. As to claim 10, Hoennig as further modified teaches wherein the client capability is a screen size (user request 300d, Fig. 4 of Kavensky).

25. **Claims 8, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 7,003,773 to Hoennig et al. (hereinafter**

Hoennig) in view of United States Patent 5,644,720 to Boll et al. (hereinafter Boll) as applied to claims 1, 13, and 18 above, and further in view of United States Patent Application Publication 2001/0047383 A1 to Dutta.

26. As to claim 8 Hoennig as modified by Boll does not explicitly disclose wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device, an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript.

However Dutta teaches wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device (embedded device, paragraph [003]), an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript (client interfaces use common communication protocols for client server communication, paragraph [0028]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the adapters of Hoennig as modified by Boll with the teachings of adapters from Dutta because this feature would have further provided a system and method with which to communication with legacy systems over the internet (paragraph [0011] of Dutta).

27. As to claim 15, this claim is rejected for the same reasons as claim 8 since claim 15 recites the same or equivalent invention; see the rejection to claim 8 above.

28. As to claim 20, this claim is rejected for the same reasons as claim 8 since claim 20 recites the same or equivalent invention; see the rejection to claim 8 above.

29. **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 7,003,773 to Hoennig et al. (hereinafter Hoennig) in view of United States Patent 5,644,720 to Boll et al. (hereinafter Boll) as applied to claim 1 above, and further in view of United States Patent Application Publication 2003/0033356 A1 to Tran et al. (hereinafter Tran).**

30. As to claim 12, Hoennig as modified by Boll does not explicitly teach wherein the specification of the client type comprises a specification of a browser and version number.

However Tran teaches wherein the specification of the client type comprises a specification of a browser and version number (client request parsed by CDM for Browser version, paragraphs [0045] and [0049]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the user request of Hoennig as modified by Boll with the teachings of client request from Tran because this feature would have

further provided a wireless server with extensibility capabilities to allow wireless clients to be dynamically configured and identified by the wireless server (paragraph [0021] of Tran).

31. **Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 7,003,773 to Hoennig et al. (hereinafter Hoennig) in view of United States Patent Application2004/0225656 A1 to Sarkar.**

32. As to claim 23, Hoennig does not explicitly disclose wherein a second process from the plurality of processes comprises:

receiving a client type specified in the connection request;

mapping the client type to the adapter, wherein the mapping performs a query in a property file that maps a plurality of client types to a plurality of adapters; and

selecting the adapter corresponding to the client type.

However Sarkar teaches wherein a second process from the plurality of processes comprises:

receiving a client type specified in the connection request (paragraphs [0030]-[0032]);

mapping the client type to the adapter, wherein the mapping performs a query in a property file that maps a plurality of client types to a plurality of adapters(paragraphs [0031]-[0034]); and

selecting the adapter corresponding to the client type (paragraph [0032]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the adapter manager of Hoennig with the teachings of request intake module from Sarkar because this feature would have provided a mechanism which allows for an integrated system in which various components are de-coupled and allow communication from any front-end user to any back-end resource to fulfill a client request (paragraph [0026] of Sarkar).

33. As to claim 24, Hoennig teaches the method of claim 23, wherein a third process from the plurality of processes comprises:

receiving information descriptive of the client's capabilities in the connection request (col. 10, lines 4-11);

receiving a set of client conditions for each adapter belonging to the plurality of adapters (step 304, Fig. 3), wherein the set of client conditions specify the minimum requirements for using that particular adapter (step 304, Fig. 3, col. 14, lines 42-45 and 52-59); and

selecting one or more adapters that meet the client conditions (step 307, Fig. 3, col. 15, lines 10-13).

34. As to claim 25, Hoennig teaches the method of claim 24, wherein the third process further comprises selecting the adapter from the one or more adapters based on a priority list (e.g. classifier, col. 3, lines 25-30), wherein the priority list ranks the plurality of adapters according to pre defined criteria (e.g. classifier, col. 3, lines 25-30).

Conclusion

35. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

CONTACT INFORMATION

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen
Primary Examiner
Art Unit 2194

/Li B. Zhen/
Primary Examiner, Art Unit 2194